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SECTION C STATEMENT OF WORK

PART 1.0 GENERAL DESCRIPTION AND PERSONNEL REQUIREMENTS

1.1 GENERAL. The objective of this procurement is to 1) obtain various engineering services for promoting innovative technologies and 2) perform incidental construction tasks related to innovative technologies applied at contaminated sites. Work will proceed predominately at Navy and Marine Corps installations and occasionally at other U.S. government agencies worldwide. The effort may include construction, installation, testing, operation, evaluation, and implementation of a variety of proven innovative remedial action technologies, strategies and systems and may also include preparation of technical documents and training for transfer of innovative technology efforts. The sites will consist of those ranked on the Superfund National Priority List (NPL), as well as, non-NPL sites regulated under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA) sites, underground storage tank (UST) sites and other sites which may require remedial action.

The exact location of individual efforts will be designated on individual Contract Task Orders.

1.2 SCOPE OF WORK

The Contractor shall provide the personnel, equipment, materials and facilities to respond to multiple requests for environmental support under various tasks and at numerous sites. The Contractor shall perform tasks in accordance with each task order statement of work. Task orders may include various documents to further describe the required remedial action, the hazardous waste site, or innovative technology. Such documents may include Records of Decision (RODs), remedial investigation and feasibility study reports, RCRA closure plans, corrective action plans, drawings and specifications. Work shall include a wide range of engineering services and construction efforts related to the cleanup of sites including, but not limited to, the following:

- a) Preparing technology transfer packages for innovative technologies, methodologies, and techniques for remedial actions. Technology transfer packages may include, but are not limited to, text, photographs, graphics, trademarks, software programs and processes. A technology transfer package is intended for publication on CD-ROMs or Navy web sites and for dissemination to the general public. A technology transfer package usually includes: a description of the technology and cognizant sites of application; a list of vendors who perform work specific to the technology described; designs, specifications, and cost information; quality assurance and quality control requirements; lessons learned and other pertinent information to assist in future applications.
- b) Preparing Cost and Performance Reports for innovative technologies, methodologies and techniques for remedial actions. These reports shall be developed in accordance with the, "Guide to Documenting and Managing Cost and Performance Information for Remediation Projects (Revised Version)", EPA 542-B-98-007 October 1998. A Cost and Performance Report shall describe the following: site background, site characteristics, treatment system, parameters affecting performance, measurements to determine matrix characteristics and operating parameters, standardized cost breakdown, performance, return on investment values, lessons learned, and timeliness of completion.

- c) Presenting technical training and seminars on innovative technologies.
- d) Conducting pilot studies and treatability tests for innovative technology applications prior to field implementation.
- e) Performing remedial and removal actions using primarily proven innovative technologies, and methods and occasionally using conventional technologies and methods
- f) Performing independent third party reviews of innovative technologies, and accessing nationally recognized experts for consulting, negotiating, strategizing and guiding the Navy and DOD's innovative technology efforts.
- g) Providing engineering support to Navy and DOD workgroups on a variety of new Installation Restoration Program (IRP) approaches and initiatives, including the following:
 - ?? Human Health and Ecological Risk Assessments
 - ?? Remedial Action Operations (RAO) and Long Term Management (LTM)
 - ?? Data Quality Objective (DQO) Methods
 - ?? Bioavailability Studies
 - ?? Site Closeout Strategies/Exit Strategies
 - ?? Unexploded Ordnance
 - ?? Risk Based Approaches to Remediation
 - ?? Environmental Background Statistics
- h) Providing technical support related to innovative technology education for community relations and negotiations with regulatory agencies;
- i) Performing a variety of on site activities in support of hazardous waste cleanup. Activities include the following: hydrogeological and geotechnical testing; data analyses; drilling, installation, and proper development of ground water monitoring wells; rapid site characterization using multimedia sampling and analysis for physical, chemical, and geotechnical characteristics; work area and perimeter air monitoring sampling and related analyses; and conducting temporary installation of support facilities such as decontamination areas, fences, roads, and utilities;
- j) Providing support and instruction to field personnel, including other contractors, for the operation and maintenance (O&M) of innovative technology systems located at project sites.
- k) Providing historical cost information in conformance with the Environmental Cost Element Structure (ECES) for remedial actions (see Section 2.6).

1.3 PERSONNEL REQUIREMENTS. The desired minimum educational and experience qualifications of personnel are set forth below.

1.3.1 Review of Resumes. The Government reserves the right to review the resumes of Contractor employees performing under the contract solely for the purpose of ascertaining

their qualifications relative to the personnel qualification terms of the contract. Accordingly, the Contractor shall furnish such resumes to the Contracting Officer upon request.

1.3.2 Contractor Work Force Responsibility. Organize, furnish, maintain, supervise, and direct a sufficient work force, which, within the limitations of the provisions of the contract, is thoroughly capable and qualified to effectively perform the work set forth in the contract.

1.3.3 Personnel Duties, Desired Experience, and Qualifications of Key Personnel. As required by each individual task order, key personnel shall have qualifications and experience to perform required duties. The key personnel identified in this statement of work are:

a) Program Manager. Responsibilities include managing all Contract Task Orders (CTOs). Duties include monitoring and controlling project costs and quality control, assigning personnel consistent with contract requirements, understanding and assuring compliance with RCRA, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); Toxic Substances Control Act (TSCA); Safe Drinking Water Act (SDWA); Clean Water Act (CWA); and Clean Air Act (CAA) regulations and their state counterparts, and other applicable or relevant and appropriate requirements, and performing as the Contractor's chief representative. As such, the Program Manager shall, at all times, maintain close liaison with the Contracting Officer and the Contracting Officer's Technical Representative. The qualified individual for this position should be a licensed professional engineer or geologist with a minimum of 6 years experience working with innovative technologies, environmental restoration studies and remedial action projects. Additionally, the individual should have a minimum of 4 years experience as a senior project engineer or manager.

b) Senior Project Engineer or Manager. Responsibilities include directing work associated with remedial action projects. Duties include ensuring that elements of project plans and specifications can be implemented within schedule and within budget, recommending and justifying change orders, developing or modifying a method for tracking materials and resources, coordinating subcontractors' work, and complying with normal health and safety procedures as well as regulatory requirements. The qualified individual should be a graduate engineer or scientist, or a graduate of a construction management program with a 4-year engineering or scientific undergraduate level degree. A minimum of 6 years construction management experience or in-field project management experience and 3 years experience in managing remedial action projects where innovative technologies have been implemented. Professional licensing and registration is desired.

c) Project Superintendent. Responsibilities include supervising on-site operations for remedial action projects. Duties include managing and administering material logistic procedures, executing the project tracking system, coordinating work including subcontractors, and monitoring and controlling project costs. The qualified individual for this position should be a graduate of a construction management program or have 5 years construction management experience. Additionally, the individual should have 2 years of experience in managing remedial action construction projects where innovative technologies have been implemented.

d) Site Health and Safety Specialist (SHSS). Responsibilities include ensuring that elements of the approved site health and safety plan are implemented and enforced on-site. This may be the Sr. project engineer / manager if qualifications are met. Desired qualifications include the following:

- 1) One year working experience at hazardous waste sites where EPA Level C and Level B personal protective equipment is desired.
- 2) Specialized training in personal and respiratory protective equipment, program implementation, proper use of air monitoring instruments, air sampling methods, and interpretation of results.
- 3) Certification in first aid and cardiopulmonary resuscitation (CPR) by a recognized organization such as the American Red Cross.
- 4) Working knowledge of applicable Federal, State, and local occupational safety and health regulations.

e) Contract Administrative Manager. Responsibilities include administering and managing CTOs for remedial action construction and services, with respect to contractual matters. Duties include ensuring compliance with applicable Federal, DoD, and Navy regulations and policy, as well as the contract terms and conditions; maintaining an adequate purchasing system, which includes overseeing procurement of subcontractors, maintaining an adequate estimating system, which includes ensuring the adequacy of proposals; tracking costs; and interfacing with Navy contracts personnel regarding contractual matters. The qualified individual for this position should have an undergraduate degree in business administration or in an appropriate related field, with 5 years of direct experience in Government contract management.

f) Senior Project Scientist. Responsibilities include consulting with the program manager and senior project engineer on scientific issues related to innovative environmental technologies. Areas of specialty include geology, hydrogeology, chemistry, and biology. Typical duties include collecting and interpreting field data, reviewing earth science data, determining and ensuring contaminant and toxicity levels, and providing field consultations as required. The qualified individual should have an undergraduate degree in the specific scientific or engineering discipline, and have 4 years experience working with innovative technologies and environmental restoration projects. Certification is desirable, where available, for the senior project scientist with professional disciplines in geology, hydrogeology, chemistry, and biology.

1.3.4 Key Personnel Substitution Requirements. The Contractor shall assign to this contract those persons whose resumes were submitted and approved by the Government. No substitutions shall be made except in accordance with this clause. The Contractor agrees that during the first 180 days of the contract performance period, no personnel substitutions shall be permitted unless such substitutions are necessary by an individual's sudden illness, death, or termination of employment. In any of these events, the Contractor shall promptly notify the Contracting Officer and provide the information required below. After the initial 180 day period, proposed substitutions shall be submitted in writing at least 15 days (45 days if security clearance is to be obtained) in advance of the proposed substitutions to the Contracting Officer, and provide information required below:

- a) Proposed substitutes shall have comparable qualifications of the person to be replaced.
- b) Requests for additions or substitutions shall provide a detailed explanation of the circumstances necessitating proposed substitutions or additions, a complete resume for the proposed substitute or addition, and any other information

requested by the Contracting Officer. The Contracting Officer will evaluate such requests and notify the Contractor in writing of approval or disapproval.

For the purpose of this clause, key personnel consist of the following:

- Program Manager
- Senior Project Engineer/Manager
- Project Superintendent
- Site Health and Safety Specialist
- Contract Administration Manager
- Senior Project Scientist

The list of key personnel may be amended from time to time by contract modification to either add or substitute personnel in accordance with key personnel substitution requirements specified herein. The Contractor shall submit a list of his key personnel with the technical proposal and this list shall be included in the contract as an attachment.

1.3.5. Training. As required by each individual task order, contractors are expected to have personnel with the requisite skills to perform the requirements of this contract. Therefore, the Government will not allow, nor reimburse as direct costs; those costs associated with the training of contractor personnel in any effort to initially attain requirements of this contract. If allowable under FAR Part 31, these costs may be included as indirect costs. Attendance at workshops or symposiums is considered training for purposes of this clause.

PART 2.0 CONTRACT MANAGEMENT

2.1 PROGRAM MANAGEMENT. The contractor shall plan, monitor, and control all Contract Task Orders issued under this contract, and to ensure that the Contract Task Orders are completed in a timely, cost effective, highly competent manner. A Program Management Office shall not be established.

2.2 CONTRACT MANAGEMENT PLAN. After award of the contract, the contractor shall submit a Contract Management Plan for review and approval. The Contract Management Plan shall delineate the management strategy, implementation of contract management systems, and all management functions involved in supporting, monitoring, and controlling project operations. Include appropriate organization charts and describe the program management functions next to names and positions of management personnel assigned to the contract. Details of the plan will be discussed with the Navy following award.

2.3 CONTRACT MANAGEMENT SYSTEM (CMS). The Contractor shall utilize a CMS which shall be an effective, integrated system to manage each Contract Task Order for: (1) planning and scheduling; (2) cost estimating, budgeting, and accounting; (3) quality assurance; (4) procurement material management; and (5) other required contract reports. Data within the CMS must be processed at a minimum of once per month to coincide with data transfers, invoicing and generation of monthly status reports.

2.4 PROJECT MANAGEMENT. Personnel principally responsible for planning, coordinating, monitoring, and controlling large, long-term and technically complex projects shall access and utilize the CMS in order to insure real-time project management. Project management activities shall include, but not be limited to, the following:

- a) Coordinating of work assignments between Government and Contractor as designated per Contract Task Order.
- b) Identifying project needs in terms of manpower and subcontractors' resources.
- c) Monitoring and controlling projects in terms of quality, schedules, and costs.
- d) Preparing progress, financial and technical reports on CTOs.
- e) Subcontracting services.

2.5 MONTHLY STATUS REPORTS. The Contractor shall prepare a Summary Progress Report and a Contract Task Order Progress Report. The reports will be due for all active CTOs on the 15th calendar day of each month, or as agreed to with the Contracting Officer. Reports shall be submitted electronically. The purpose of these reports will be to apprise the Navy and to assess the financial status of the overall program and individual projects.

2.5.1 Summary Progress Report. The summary progress report shall consist of the pertinent technical, financial and subcontracting information for the reporting period. Its focus shall be the Contractor's overall program effort on all CTOs, highlighting key activities and any deviations from planned schedules and budgets. At a minimum the reports shall consist of a concise summary of all technical activities performed under the contract during the monthly reporting period. Also included are highlights of progress achieved under each CTO, changes in Key Personnel, a spreadsheet showing all CTOs and associated modifications, project titles, project location, points of contact, award date, completion date, cost and fee, and cumulative total of cost plus fee for each CTO including modifications. The Contracting Officer shall identify the

details of the summary progress report format after contract award. The report shall be submitted electronically to the Contracting Officer's Technical Representative

2.5.1.1 Technical. This section shall consist of a concise, executive level summary of all technical activities performed under the contract during the reporting period. The contractor shall provide baseline schedules for performing work and monitoring progress, and shall document the work that has been accomplished at a site. The summary shall highlight the progress achieved under each project. Specific areas of interest shall include difficulties encountered during the reporting period and corrective actions taken, a statement of activity anticipated during the subsequent reporting period, and a schedule showing accomplishments versus planned activities. The report shall include any changes of key personnel concerned with the project.

2.5.1.2 Financial. The financial section shall provide a baseline for planned expenditures.

This section shall provide the following information:

- CTO budgets
- Cumulative invoiced amounts
- Available estimated costs
- Estimated costs to complete ongoing CTOs
- Estimated budget variances and a plan for corrective actions, if applicable
- Cost saving initiatives implemented during the reporting period

2.5.1.3 Subcontracts. This section shall list all subcontracts awarded monthly by title, contractor, and dollar value; percentage of small business subcontracts awarded, the percentage of small disadvantaged business subcontracts awarded, and how these percentages compare to the Subcontracting Plan percentages.

2.5.2 Contract Task Order Progress Report. The CTO Progress Report shall contain technical and financial summaries for each CTO. The Contracting Officer shall identify format of the status report after contract award. The report shall be submitted electronically to the COTR, RPM, or other government personnel as indicated by the Contracting Officer. The report shall be submitted no later than 5 working day after the period reported. The report shall provide the following information:

- CTO name and number
- Location of the CTO project
- Objective of the CTO
- Accomplishments during the 30-day reported period
- Future work planned for the following 30-day period
- Issues of concern and planned action
- Cost summary
- CTO award date and end date
- Project schedule

2.6 DETAILED COST REPORT. A detailed historical cost report due upon request shall contain burdened and unburdened costs, organized using the Environmental Cost Element Structure (ECES). An introduction to the ECES, the ECES structure itself, and account

descriptions may be obtained from the Department of Energy's web page at: <http://www.em.doe.gov/aceteam/eces.html>. As a minimum, costs shall be categorized to the 3rd level of detail. The report shall show the WBS level with the unit of measure and unit cost to the 3rd level. The report shall also include a short description of each level and be consistent with the ECES Dictionary.

PART 3.0 GENERAL REQUIREMENTS FOR CONTRACT TASK ORDERS

3.1 CONTRACT TASK ORDER BASIC REQUIREMENTS

3.1.1 Project Information. The type of project information the Government will provide to the Contractor depends on the specific contract task order. The information may include contract drawings, maps and specifications, reports, reference drawings, and boring logs.

3.1.2 Drawing Error and Omission. Omissions from drawings, specifications or insufficient descriptions of details of work which are manifestly necessary to carry out the intent of the drawings and specifications or, which are customarily performed, shall not relieve the Contractor from performing such omitted or insufficiently described details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

3.1.3 Notification of Drawing Discrepancies. The Contractor shall check all furnished drawings and specifications immediately upon their receipt and shall promptly notify the Contracting Officer or designated representative of any discrepancies and a proposed solution. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work

3.1.4 Reference Drawings Accompanying Specification. Reference drawings may accompany Contract Task Order specifications and are intended only to show original construction. Drawings are the property of the Government and shall not be used for any purpose other than those contemplated by the specification. Reference drawings included with a Contract Task Order will typically be half size. Information on procuring any half-size drawing as a full-size drawing may be obtained from the Contracting Officer or designated representative.

3.1.5 Boring Logs. Boring logs may be available to the Contractor for specific Contract Task Order remedial action work. If boring logs are available, the Government does not guarantee that borings indicate actual conditions, except for the exact locations and the time that they were made. Subsurface data obtained by the Government at these locations will be made available for examination by the Contractor.

3.2 SPECIFICATIONS AND STANDARDS. The specifications and standards referenced in the specifications, including addenda, amendments, and errata listed, shall govern where references thereto are made. In case of differences between the specifications or standards and the project specification or accompanying drawings, the project specifications and accompanying drawings shall govern. Otherwise, the referenced specifications and standards shall apply. The requirement for packaging, packing, marking, and preparing for shipment or delivery included in the referenced specifications apply only to materials and equipment furnished directly to the Government and not to materials and equipment furnished and installed by the Contractor.

3.3 OPTIONAL REQUIREMENTS. Where a choice of materials or methods, or both, is permitted in the contract or Contract Task Order, the Contractor shall have the discretion to choose an alternative unless otherwise required by the specification.

3.4 AS-BUILT RECORDS. The Contractor shall maintain/develop at the project site one set of full-size contract drawings and specifications marked to show any deviations which have been

made from the Contract Task Order drawings or specifications including buried or concealed structures and utility features revealed during the course of site work. Record the horizontal and vertical location of buried utilities that differ from the contract drawings. The drawings shall be available for review by the Contracting Officer at all times. Upon completion of the work, deliver the marked set of prints to the Contracting Officer or designated representative.

3.5 STATION REGULATIONS. The Contractor and his employees and subcontractors shall become familiar with and obey station regulations, including fire, traffic, and security regulations. Personnel employed on the station shall keep within the limits of the work (and avenues of ingress and egress), and shall not enter restricted areas unless required to do so and are cleared for such entry. The Contractor's equipment shall be conspicuously marked for identification.

3.6 SCHEDULING. The Contractor shall schedule work so as to causes the least amount of interference with station operations. Work schedules shall be subject to the approval of the Contracting Officer or designated representative. Permission to interrupt any station roads, railroads, or utility service shall be requested in writing a minimum of 15 calendar days prior to the desired date of interruption. Certain installations will restrict interruption of utility services as well as general station operations. CTOs will specify restrictions when applicable, and specify when the work shall commence and be completed.

3.7 LAYOUT OF WORK. The Contractor shall lie out work from Government-established base lines and benchmarks indicated on the drawings and make measurements in connection therewith. The Contractor shall furnish stakes, templates, platforms, equipment, tools, and materials and labor as may be required in laying out any part of the work from the base lines and benchmarks established by the Government. The Contractor shall execute the work to the lines and grades established or indicated and shall maintain and preserve stakes and other control points established in the contract task order until authorized by the Contracting Officer or designated representative to remove the stakes.

3.8 EXISTING WORK

3.8.1 Protection. The disassembling, disconnecting, cutting, removing, or altering in any way of existing work shall be carried on in such a manner as to prevent injury or damage to portions of existing work, whether they (1) remain in place, (2) are re-used in the new work, or (3) are salvaged and stored.

3.8.2 Replacement. Portions of existing work which have been cut, damaged, or altered in any way during construction operations shall be repaired or replaced in kind in an approved manner to match existing or adjoining work. Existing work shall, at the completion of operations, be left in as good a condition as existed before the new work started.

3.8.3 Location of Underground Facilities. The Contractor shall verify the location and elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed, but indicated in locations to be excavated, traversed by piping or ducts, or otherwise to be disturbed by or involved in this work. The Contractor shall scan the project site with electromagnetic or sonic equipment and mark the surface of the ground where existing underground utilities are discovered.

3.9 FACILITIES AND SERVICES. The availability of facilities and services for example, temporary buildings, field offices, and need for project sign, will be specified in CTOs.

3.10 RESTRICTIONS ON EQUIPMENT. Certain installations requiring remedial action work may have sensitive areas and therefore may enforce radio transmitter restrictions and may require electromagnetic interference suppression on Contractor's equipment. CTOs will specify restrictions, when applicable.

3.11 SANITATION. The Contractor shall provide adequate sanitary conveniences of a type approved for the use of persons employed properly secluded from public observation, and maintained by the Contractor in such a manner as shall be required or approved by the Contracting Officer or designated representative. Conveniences shall be maintained without nuisance. Upon completion of the work, the Contractor shall remove the conveniences from the premises, leaving the premises clean and free from nuisance.

3.12 SECURITY REQUIREMENTS.

3.12.1 United States Citizenship. No employee or representative of the Contractor will be admitted to the work site unless the employee or representative furnishes satisfactory proof of United States citizenship, or is specifically authorized admittance by the government.

3.12.2 Identification Badges and Vehicle Passes. Identification badges and vehicle passes will be furnished without charge, if required; application for and use of passes will be specified in the CTOs. Immediately report lost or stolen passes to the cognizant security officer.

3.12.3 Site Security Requirements. Provide site security such as fencing or guard service as required by each Contract Task Order. However, at a minimum, maintain the site and other contractor controlled areas in such a manner as to minimize the risk of injury or accident to site personnel or others that may be in the area. Carefully mark work on or near roadways with lights and barricades complying with State and local regulations; or where such regulations are not applicable, provide adequate lights and barricades to minimize the risk of an accident. Fence open excavations that pose a danger to site personnel or others to prevent accidental entry. Shore side slopes of excavations or leave at a safe angle of repose. Equipment, when not in operation, shall be left in a safe manner (e.g., wheels blocked, buckets on the ground, and in an area under the responsibility of the contractor). Near residential areas where there may be children, special consideration shall be given to site security and safety needs.

3.13 CONTRACTOR AND SUBCONTRACTOR PERSONNEL LIST. Provide to the Contracting Officer or designated representative, a list of Contractor and/or subcontractor personnel (including addresses and telephone numbers) for use in the event of an emergency. As changes occur and additional information becomes available, correct and change the information contained in previous lists. The Contractor shall post a list of the subcontractors at the project site.

3.14 STORM PROTECTION. If a warning of gale force or stronger winds is issued, take precautions to minimize any danger to persons, and protect the work and any nearby Government property. Precautions shall include, but are not limited to, closing openings, removing loose materials, tools, and equipment from exposed locations, and removing or securing scaffolding and other temporary work. Close openings at the work area if storms of lesser intensity pose a threat to the work or any nearby Government property.

3.15 EMERGENCY RESPONSE

3.15.1 Definition. Emergency response is defined as having action personnel at the identified location within 24 hours of notification. These personnel shall be staging and preparing for immediate actions to be taken.

3.15.2 Examples. Emergency response is required in order to tend to unplanned incidents requiring immediate attention. Examples of work requirements include expedited sampling or testing, removal of contaminated soils, and identification of IDLH circumstances, such as in the case of hazardous material spills, industrial accidents, or identification of high levels of contamination.

3.15.3 Response. The Contractor shall respond to an emergency response requirement as quickly as physically possible, administration matters will take second priority and will be handled concurrently or after the situation is in progress or has been resolved, ensuring that the response is not slowed down. Emergency actions will only be directed by the Contracting Officer.

3.16 PUBLIC RELEASE OF INFORMATION. The Contractor shall not publicly disclose information concerning any aspect of the materials or services relating to the contract without the prior written approval of the Contracting Officer unless specifically required by law. The Contractor shall insert the substance of this paragraph into each subcontract and purchase order related to the project.

3.17 PROJECT SCHEDULE AND TIME CONSTRAINTS. CTOs issued under this contract will specify when the work shall commence and be completed.

3.18 GOVERNMENT FURNISHED MATERIALS. Each CTO will specify, if applicable, the provision and handling of Government-furnished materials and equipment.

3.19 RESTRICTIONS ON OPERATIONS. Certain installations will restrict interruption of utility services as well as general station operations. CTOs will specify restrictions when applicable.

PART 4.0 ENVIRONMENTAL AND NATURAL RESOURCES PROTECTION

4.1 GENERAL. The requirements stated herein provide general protection of natural resources and the environment during execution of Contract Task Order work. The Contractor shall comply with Federal, State, local, and base environmental laws and regulations including, but not limited to, pertinent Occupational Safety and Health Administration and Department of Transportation requirements; National Environmental Policy Act; Clean Water Act; Clean Air Act; Endangered Species Act; Safe Drinking Water Act; Toxic Substance Control Act; Resource Conservation and Recovery Act as amended by the Hazardous and Solid Waste Act; and Comprehensive Environmental Response, Compensation and Liabilities Act as amended by Superfund Amendments and Reauthorization Act; and Emergency Planning and Community Right-to-Know Act of 1986. The Contractor shall ensure that activities performed by their personnel, subcontractors, and suppliers are executed as required by these laws and regulations.

4.2 ENVIRONMENTAL PROTECTION REQUIREMENTS. Provide and maintain protection of the natural resources and environment during the life of the project. Plan for and provide environmental protective measures to control pollution that develops during operations. Plan for and provide environmental protective measures required to correct conditions that develop during site work associated with the project.

4.2.1 Environmental Protection Plan. When specified in a Contract Task Order, meet with the Contracting Officer or designated representative to discuss the proposed environmental protection plan and to develop mutual understanding relative to the details of environmental protection, including measures for protecting natural resources, required reports, and other measures to be taken.

4.2.2 Environmental Conditions Report. When specified in a Contract Task Order, perform a survey of the project site with the Contracting Officer or designated representative prior to starting work. Take photographs where possible showing existing environmental conditions in and adjacent to the site.

4.3 PROTECTION OF NATURAL RESOURCES. Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work. Confine activities to within the limits of the work specified in the Contract Task Order.

4.3.1 Land Resources. Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer or designated representative's approval. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorage unless approved by the Contracting Officer or designated representative.

4.3.2 Protection. Protect existing trees, which are to remain, and which may be injured, bruised, defaced, or otherwise damaged by Contractor operations. Remove displaced rocks from uncleared areas. The Contractor, upon Contracting Officer or designated representative's approval, shall remove trees with 30 percent or more of their root systems destroyed.

4.3.3 Replacement. Remove trees and other landscape features scarred or damaged by equipment operations, and replace with equivalent, undamaged trees and landscape features. Obtain Contracting Officer or designated representative's approval before replacement.

4.3.4 Temporary Construction. Remove traces of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, and stockpiles of excess or waste materials. Grade temporary roads, parking areas, and similar temporarily used areas to conform with surrounding contours.

4.3.5 Stream Crossings. The Contracting Officer or designated representative's approval is required before any equipment will be permitted to ford streams. In areas where frequent crossings are required, install temporary culverts or bridges. Remove temporary culverts or bridges upon completion of work, and repair the area as specified in CTOs.

4.3.6 Fish and Wildlife Resources. Do not disturb fish or wildlife. Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish or wildlife, except as specified in CTOs.

4.3.7 Wetland Areas. The Contractor shall not disturb any wetland areas unless authorized.

4.4 HISTORICAL AND ARCHAEOLOGICAL RESOURCES. Carefully preserve and report immediately to the Contracting Officer or designated representative historical or archaeological items, or human skeletal remains discovered in the course of work. Stop work in the immediate area of the discovery until directed by the Contracting Officer or designated representative to resume work. Protect monuments, markers, and works of art.

4.5 EROSION AND SEDIMENT CONTROL MEASURES

4.5.1 Burnoff. Burnoff of the ground cover is not permitted.

4.5.2 Borrow Pit Areas. Manage and control borrow pit areas to prevent sediment from entering nearby streams or lakes. Restore areas, including those outside the borrow pit, disturbed by borrow and haul operations. Restoration includes grading, replacement of topsoil, and establishment of a permanent vegetative cover. Uniformly grade side slopes of borrow pit to no more than a slope of 1 part vertical to 2 parts horizontal. Uniformly grade the bottom of the borrow pits to provide a flat bottom and drain by outfall ditches or other suitable means. Stockpile topsoil removed during the borrow pit operation, and use as part of restoring the borrow pit area.

4.5.3 Protection of Erodible Soils. Immediately finish the earthwork brought to a final grade, as indicated or specified in CTOs. Immediately protect the side slopes and back slopes upon completion of rough grading. Plan and conduct earthwork to minimize the duration of exposure of unprotected soils.

4.5.4 Temporary Protection of Erodible Soils. Use the following methods to prevent erosion and control sedimentation:

- a) Mechanical Retardation and Control of run-off. Mechanically retard and control the rate of run-off from the site. This method includes building of diversion ditches, benches, and berms to retard and divert run-off to protected drainage courses.
- b) Vegetation and Mulch. Provide temporary protection on sides and back slopes as soon as rough grading is completed or sufficient soil is exposed to require erosion

protection. Protect slopes by accelerated growth of permanent vegetation, temporary vegetation, mulching, or netting. Stabilize slopes by hydroseeding, anchoring mulch in place, covering with anchored netting, sodding, or such combination of these and other methods necessary for effective erosion control.

4.6 CONTROL AND DISPOSAL OF SOLID AND SANITARY WASTES. Collect solid wastes and place in containers that are regularly emptied at intervals to prevent the attraction of rodents or disease vectors. Do not prepare, cook, or dispose of food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. Upon completion of work, leave the areas clean. Control and dispose of waste. Dispose of rubbish, debris, garbage, and sewage according to procedures and requirements specified in the Contract Task Order. The Contractor is required to utilize only permitted disposal facilities. When requested, provide permit identification number, facility address and point of contact.

4.7 CONTROL AND DISPOSAL OF HAZARDOUS MATERIAL AND WASTE

Manage, store transport and dispose of all hazardous material and hazardous waste. Manage generated hazardous material, hazardous waste, and hazardous waste residues in accordance with Federal, State, and local regulations, as well as the applicable station hazardous waste management plan. Any storage of hazardous material and waste in containers must be in accordance with Federal, State, local and applicable station requirements. All hazardous material coming on site must have an MSDS (OSHA 174 or equivalent). Any transportation and disposal of hazardous waste must be in accordance with Federal, State, local and applicable station requirements. Off site disposal shall be documented by provision of manifest and certificate of destruction. Original waste manifests shall be forwarded to the Contracting Officer or designated representative.

4.7.1 Hazardous Waste Management Plan. When specified in a Contract Task Order, estimate the types and quantities of hazardous waste or hazardous materials that will be generated from site work that will require transportation and disposal off the project site. Indicate how and when these wastes will be packaged, stored on-site, transported and disposed.

4.7.2 Oil and Hazardous Material Spills. Take precautions to prevent oil and hazardous material spills. In the event of a spill, immediately notify the Contracting Officer or designated representative and the Station Emergency Response Coordinator where applicable. Spill response shall be in accordance with Federal and applicable State regulations and the station contingency plan.

4.7.3 Emergency and Hazardous Chemical Inventory Forms. The Contractor shall maintain an inventory of all hazardous materials brought to, or generated at the project site. The purpose of the inventory is for the Navy to comply with the Emergency Planning and Community Right-to-Know Act (EPCRA). Hazardous materials include hazardous chemicals, toxic chemicals, hazardous substances, and extremely hazardous substances. The inventory form and frequency of submittal shall be as approved by the Contracting Officer or designated representative. The hazardous material inventory shall include the following information: material name (trade and chemical), material Chemical Abstract Service (CAS) #, material classification(s), reportable quantity if applicable, threshold planning quantity if applicable, maximum quantity/volume maintained on the project, average daily quantity used on the project, and total quantity used on the project.

4.7.4 **Toxic Chemical Release Report.** The Contractor shall promptly report any release of a potentially hazardous substance to the Contracting Officer or designated representative. The report shall include the following information: material name (trade and chemical), material CAS #, applicable reportable quantity, location of the release, media into which release occurred, description of cause of release, source of release, date/time/duration of release, response actions including notifications made, any known or anticipated health risks associated with the release and medical recommendations, and any known or anticipated impacts to public health or the environment and recommendations.

4.8 DUST CONTROL. Keep dust down at all times, including during non-working periods. Sprinkle or treat the soil at the site with dust suppressants, haul roads, and other areas disturbed by operations. Dry power brooming shall not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing shall be permitted only for cleaning non-particulate debris such as steel reinforcing bars. Only wet cutting shall be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster.

4.9 NOISE. Make the maximum use of low-noise emission products as regulated by the Code of Federal Regulations (CFR), Title 40, Part 203. Blasting or using explosives shall not be permitted without written permission from the Contracting Officer or designated representative, and then only during the designated times specified in the Contract Task Order.

4.10 ASBESTOS. No asbestos containing materials shall be used by the contractor in performing the services required on the CTOs issued under this contract. For the purposes of this requirement, asbestos is defined to include any of the following six fibrous mineral silicates of commercial importance: chrysolite, amosite, crocidolite, termolite, anthophyllite, and actionlite.

4.11 PERMITS. Obtain administrative and substantive permits, licenses, and certificates required by CTOs and applicable Federal, State, and Local regulations.

PART 5.0 HEALTH AND SAFETY

5.1 DESCRIPTION. This part describes in general terms, the minimum Contractor health and safety requirements associated with the contract. The Contractor shall prepare, implement, and enforce for each site described in CTOs, a Site Health and Safety Plan (SHSP). The Contractor shall ensure that there subcontractors, suppliers, and support personnel follow health and safety provisions.

5.2 REGULATIONS. The Contractor's Health and Safety Program and SHSPs shall comply with and reflect appropriate requirements of the Occupational Safety and Health Administration (OSHA), specifically 29 CFR 1910 "Occupation Safety and Health Standards" (especially 29 CFR 1910.120 "Hazardous Waste Operations and Emergency Response") and 29 CFR 1926 "Safety and Health Regulations for Construction"; the U.S. Army Corps of Engineers (COE) "Safety and Health Requirements Manual," EM-385-1-1, April 1981, revised September 1996; "Navy Installation Restoration Manual", Chapter 12, February 1997; and any other relevant Federal, State, and local regulations.

5.3 IMPLEMENTATION

5.3.1 Corporate Health and Safety Plan. After contract award, the Contractor will be tasked to submit a current Corporate Health and Safety Plan to the Contracting Officer for review by the Government for use as the contract Health and Safety Program Plan. Any additions or revisions required, as a result of this review shall be made by the Contractor.

5.3.2 Site Health and Safety Plan (SHSP). For each CTO involving field activities, prepare a written SHSP that complies with the respective Contract Task Order. As a minimum, the SHSP shall contain the following elements:

- a) Site description and contaminant characteristics.
- b) Health and safety hazard assessment for each site task and operation.
- c) Name of the CIH and/or Site Health & Safety Specialist (SHSS).
- d) Health and safety staff organization and responsibilities, including names and telephone number of each responsible person.
- e) Site specific training; i.e., beyond the initial training.
- f) Site specific medical surveillance parameters to include the drug testing policy and program.
- g) Personnel protective equipment (PPE) to be used, limitations, inspection procedures, and establishment of action levels for upgrades and downgrades of PPE.
- h) Maintain frequency and types of monitoring and sampling, plans, techniques, and instrumentation, including air (on-site and perimeter), heat and cold and stress, noise, and chain of custody for samples.

- i) Health and safety work precautions and procedures; including MSDS, pre-entry briefings and subcontractor control.
- j) Site control measures.
- k) Personnel hygiene and decontamination facilities and procedures.
- l) Equipment decontamination facilities and procedures.
- m) On-site first aid and emergency procedures and equipment.
- n) Emergency response plan and contingency procedures (on-site and off-site).
- o) Logs, reports, and record keeping.
- p) On-site work plans.
- q) Communication procedures.
- r) Spill containment procedures.
- s) Confined space procedures

5.3.3 Acceptance of SHSP. Acceptance of the Contractor's SHSP is required prior to start of field activities on each contract task order. Acceptance is conditional and will be predicated on satisfactory performance during field activities. The Contracting Officer or designated representative shall implement no change in the approved plan without written concurrence. The Government reserves the right to require the Contractor to make changes in their SHSP and operations as necessary to ensure the health and safety of persons on or near the site.

5.4 SITE HEALTH AND SAFETY SPECIALIST (SHSS). The Contractor shall use a trained, experienced SHSS to implement and enforce accepted SHSPs. A SHSS shall be assigned to each site and shall report to the Project Manager in matters pertaining to site health and safety. The SHSS shall have the on-site responsibility and authority to modify and stop work, or remove personnel from the site if working conditions change which may affect on-site and off-site health and safety. The SHSS shall be the main contact for any on-site emergency situation. Except in an emergency, the SHSS may modify the approved SHSP only after consultation and concurrence of the CIH and the Contracting Officer or designated representative. The SHSS shall be first aid and CPR Qualified.

5.5 PROTECTIVE EQUIPMENT. Maintain on-site protective equipment as specified in each contract task order for use by Government personnel and other site visitors.

PART 6.0 QUALITY CONTROL (QC)

6.1 SUMMARY. This part establishes minimum requirements for quality control that shall apply to all CTOs. More stringent requirements may be included in specific CTOs.

6.2 REFERENCES. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

6.2.1 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 880-95 Standard Practice for Criteria for use in Evaluation of Testing Laboratories and Organization for Examination and Inspection of Steel, Stainless Steel, and Related Alloys

ASTM C 1077-98 Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use In Construction and Criteria for Laboratory Evaluation

ASTM D 3666-98 Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials

ASTM D 3740-99c Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM D 5092 (1995) Standard Practice for Design and Installation of Groundwater Monitoring Wells in Aquifers

ASTM E 329-00 Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

ASTM E 543-99 Standard Practice for Agencies Performing Nondestructive Testing

6.2.2 U.S. ARMY CORPS OF ENGINEERS (COE)

U.S. Army Corps of Engineers (COE) "Safety and Health Requirements Manual," EM-385-1-1, September 1996, revised.

6.2.3 NAVAL FACILITIES ENGINEERING SERVICES CENTER (NFESC)

Navy Installation Restoration Chemical Data Quality Manual, October, 1999

6.3 QUALITY CONTROL. Provide the following to the Contracting Officer or designated representative:

6.3.1 Quality Control (QC) Program Plan. After contract award, the contractor will be directed to submit an overall QC Program Plan.

6.4 FIELDWORK REPORTING. When specified in a Contract Task Order, deliver to the Contracting Officer or designated representative and other identified parties upon request, a copy of the daily contractor production report. All fieldwork reporting shall be readily made available to the Contracting Officer's representative upon arrival at site.

6.5 QC PROGRAM

6.5.1 Requirements. Establish and maintain an overall QC Program consisting of a Program Manager; QC Program Plan; submittal review and approval; testing; completion inspections; and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this contract.

6.5.2 Project QC Plan. The Project QC Plan, when requested in a CTO, shall include the elements of the QC Program, and shall cover on-site and off-site work keyed to the work sequence.

6.6 QC MANAGEMENT

6.6.1 QC Program Manager. Provide a QC Program Manager to manage and implement the contract-wide QC program. Any changes to the established contract-wide QC Program Plan or Project QC Plans shall be at the direction and approval of the QC Program Manager, with concurrence of the Contracting Officer or designated representative. The QC Program Manager shall be readily available for consultation when required by the contract or the Contracting Officer or designated representative.

6.7 PROJECT QUALITY CONTROL (QC) PLAN

6.7.1 Requirements. When specified in a CTO, submit for approval by the Contracting Officer or designated representative, a Project QC Plan that covers both on-site and off-site work and includes the following:

- a) Name and qualifications, in resume format, for the Project Manager or person responsible for quality control during fieldwork activities.
- b) A letter signed by an officer of the firm appointing the personnel responsible for implementing the QC program as described in this contract. Include in the letter the Project Manager's authority to direct the correction of non-conforming work.
- c) Procedures for reviewing, approving, and managing submittals. Provide the names of persons authorized to review and certify submittals prior to approval. Provide the initial submittal of the submittal register as specified in Part 7, "Submittals," and as required by the contract task order.
- d) Testing laboratory information required by the paragraph entitled "Accredited Laboratories" or "Testing Laboratory Requirements," as applicable.

- e) A testing plan and log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test.
- f) Procedures to identify, record, track and complete rework items.
- g) Documentation procedures, including proposed report formats.
- h) A listing of outside organizations such as testing laboratories, architects, and consulting engineers that will be employed by the Contractor and a description of the services these firms will provide.
- i) A list of the definable features of work. A definable feature of work is a task that is separate and distinct from other tasks and requires separate control requirements. As a minimum, consider each division of the specification as a definable feature of work. However, at times, there may be more than one definable feature of work in each division of the specification.

6.8 TESTING. Perform sampling and testing as required for each CTO under this contract.

6.8.1 Testing Laboratory Requirements. Provide an independent testing laboratory qualified to perform sampling and tests required by this contract. Laboratories performing work in connection with construction testing shall be certified to the methods specified by each Contract Task Order.

6.8.2 Accredited/Certified Laboratories.

6.8.2.1 Non-Environmental Projects. Acceptable accreditation programs are the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State Highway and Transportation Officials (AASHTO) Program, and the American Association for Laboratory Accreditation (AALA) Program. Furnish to the Contracting Officer or designated representative, a copy of the certificate of accreditation, scope of accreditation, and latest directory of the accrediting organization for accredited laboratories. The scope of the laboratory's accreditation shall include the test methods required by the contract. The Contracting Officer or designated representative must approve any deviation from the above requirements in writing. On-site chemical analysis by mobile laboratories must be performed by laboratories certified by the State (if available) in which the project/site is located.

6.8.2.2 Environmental Projects. Laboratories performing Installation Restoration Program (IRP) work funded by ER,N or BRAC (ER,N eligible in the absence of BRAC funding) are responsible for ensuring that their activities and those of their subcontractors comply with Navy's IR QA/QC Program requirements. These requirements are presented in the Navy Installation Restoration Chemical Data Quality Manual, NFESC Special Report #SP-2056-ENV, dated September 1999. Conformance with revisions or updates to this Manual is also required. Unless otherwise specified, sampling and analysis shall be performed using current EPA procedures and quality control. Any deviation from the above requirements must be approved in writing by the appointed QA Officer (QAO) of the applicable Engineering Field Division/Activity (EFD/A).

6.8.2.3 Non-Navy Projects. Accreditation requirements for laboratories performing work funded by other DoD programs, will be considered on a case by case basis, and must be approved in writing by the appointed QAO.

6.8.3 Inspection of Testing Laboratories. Prior to approval of non-accredited laboratories, the proposed testing laboratory facilities and records may be subject to inspection by the Contracting Officer or designated representative.

6.8.4 Capability Check. The Contracting Officer or designated representative retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this contract.

6.9.5 Test Results. Cite applicable contract requirements, tests, or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. A testing laboratory representative authorized to sign certified test reports shall sign test results. Furnish the signed reports, certifications, and other documentation to the Contracting Officer or designated representative. Furnish a summary report of field tests at the end of each month. Attach a copy of the summary report to the last Daily Contractor Quality Control Report of each month. For test results involving environmental samples, deliverables shall be defined in the Sampling and Analysis Plan.

6.9 QC DOCUMENTATION. Maintain current and complete records of on-site and off-site QC program operations and activities as required by each CTO.

6.9.1 Contractor Production Report. Production Reports are required for each day that work is performed. The reporting of work shall be identified by terminology consistent with the construction schedule. Contractor Production Reports are to be prepared, signed, and dated by the Project Manager and shall contain the following information:

6.9.3 Testing Plan and Log. As tests are performed, the Project Manager shall record on the testing plan and log the date the test was conducted, the date the test results were forwarded to the Contracting Officer or designated representative, and any remarks and acknowledgment that an accredited or Contracting Officer approved testing laboratory was used. Attach a copy of the updated testing plan and log to the last daily Contractor Quality Control Report of each month.

6.9.4 Rework Items List. The Project Manager shall maintain a list of work that does not comply with the contract, identifying what items need to be reworked, the date the item was originally discovered, and the date the item was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of the Contractor rework items list to the last daily Contractor Quality Control Report of each month. The Contractor shall be responsible for including on this list, items needing rework including those identified by the Contracting Officer or designated representative.

6.9.5 As-Built Records. The Project Manager is required to review the as-built records required by Part 3 to ensure that as-built records are kept current on a daily basis and marked to show deviations which have been made from the contract drawings. The Project Manager shall

initial each deviation or revision. Upon completion of work, the Project Manager shall submit a certificate attesting to the accuracy of the as-built records prior to submission to the Contracting Officer or designated representative.

PART 7.0 SUBMITTALS (GENERAL STANDARDS)

7.1 SUMMARY. This section of the contract is applicable only when specifically identified under individual CTOs. Submittals shall be defined in each specific CTO.

7.2 TYPES OF SUBMITTALS. Submittals include, but are not limited to, shop drawings, product data, samples, administrative and closeout submittals and additional technical support data presented for review and approval.

7.2.1 Approving Authority. The person who is authorized to approve a submittal.

7.3 SUBMITTAL LIST. As requested in each contract task order, provide a list of pertinent submittals. The initial submittal list is completed by the Contractor is designated the initial submittal list required as part of the QC Plan. Additional details concerning the use of the submittal lists will be explained at the initial kick-off meeting.

7.4 PROCEDURES FOR SUBMITTALS

7.4.1 Reviewing, Certifying, Approving Authority. The Contractor's Program Manager shall be responsible for reviewing and certifying that submittals are in compliance with contract requirements. The approving authority on submittals is the Program Manager unless submission to the Contracting Officer is specified for the specific submittal.

7.4.2 Constraints

- a) Submission. Submittals shall be complete for each definable feature of work; components of the definable features interrelated as a system shall be submitted at the same time.
- b) Acceptability. When submittal acceptability is dependent on conditions, items, or materials included in separate subsequent submittals, the submittal will be returned without review.
- c) Approval. Approval of a separate material, product, or component does not imply approval of the assembly in which the item functions.

7.4.3 Scheduling

- a) Coordination. Coordinate preparation and processing of submittals with performance of the work so that work will not be delayed by submittal processing. Allow for potential requirements to resubmit.
- b) Review Period. Except as specified otherwise, allow a review period, beginning with receipt by the approving authority, that includes at least 15 working days for submittals requiring Program Manager approval and 20 working days for submittals requiring Contracting Officer or designated representative approval. The period of review for submittals with Contracting Officer or designated representative approval begins when the Government receives the submittal from the Contractor's Program Manager. The period of review for each resubmit is the same as for the initial submittal.

7.4.4 Contractor's Responsibilities

- a) **Verify Field Conditions.** Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and contract documents.
- b) **Transmission.** Transmit submittals to the Program Manager in orderly sequence, in accordance with the submittal register, and to prevent delays in the work, delays to the Government, or delays to separate Contractors.
- c) **Revisions.** Correct and resubmit submittal as directed by the approving authority. Direct specific attention, in writing or on resubmitted submittal, to revisions not requested by the approving authority on previous submissions.
- d) **Copies.** Furnish additional copies of submittals when requested by the Contracting Officer or designated representative, to a limit of 20 submittals.
- e) **Completion of Work.** Complete work that shall be accomplished as a basis of a submittal in time to allow the submittal to occur as scheduled.
- f) **Approval.** Ensure no work has begun until submittals for that work have been returned as "approved," or "approved as noted" except to the extent that a portion of the work shall be accomplished as a basis of the submittal.

7.4.5 Program Manager Responsibilities

- a) **Receiving Date.** Note the date on which the submittal was received from the Contractor on each submittal for which the Project Manager is the approving authority.
- b) **Verify Field Conditions.** Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and contract documents.
- c) **Review.** Review submittals for conformance with project design concepts and compliance with the contract documents.
- d) **Action.** Act on submittals, determining the appropriate action based on the Program Manager's review of the submittal.
 - (1) When the Project Manager is the approving authority, take the appropriate action on the submittal from the possible actions defined in the paragraph entitled "Actions Possible."
 - (2) When the Contracting Officer or designated representative is the approving authority or when a variation has been proposed, forward the submittal to the Government with the certifying statement or return the submittal marked "not reviewed" or "revise and resubmit" as appropriate.
- e) **Legible.** Ensure that material is clearly legible.

f) Certification Stamp. Stamp each sheet of each submittal with the Contractor's certification stamp, except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only.

(1) When the approving authority is the Contracting Officer or designated representative, the Program Manager will certify submittals forwarded to the Contracting Officer or designated representative with the following certifying statement:

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated into Contract Number _____, is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is submitted for Government approval.

Certified by Submittal Reviewer _____, Date _____
(signature when applicable)

Certified by Project Manager _____, Date _____
(signature)

(2) When the approving authority is the Project Manager, the Project Manager will use the following approval statement when returning submittals to the Contractor as "Approved" or "Approved as Noted":

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated into Contract Number _____, is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is approved for use.

Certified by Submittal Reviewer _____, Date _____
(signature when applicable)

Approved by Project Manager _____, Date _____
(signature)

g) Signature. Sign the certifying statement or approval statement. The person signing the certifying statements shall be the Program Manager member specified in the part entitled "Quality Control" or designated in writing by the Contractor as having that authority. The signatures shall be in original ink. Stamped signatures are not acceptable.

h) Submittal Register. Update the submittal register as submittal actions occur and maintain the submittal register at the project site until final acceptance of work by the Contracting Officer or designated representative.

i) Retention. Retain a copy of approved submittals at the project site, including the Contractor's copy of approved samples.

7.4.6 Government's Responsibilities. The following applies to the Contracting Officer or designated representative when indicated to be the approving authority:

- a) Submittal Date. Note the date on which the submittal was received from the Project Manager, on each submittal.
- b) Review. Review submittals for approval within the scheduling period specified and only for conformance with project design concepts and compliance with the contract documents.
- c) Returned Submittals. Identify returned submittals with one of the actions defined in the paragraph entitled "Actions Possible" and with markings appropriate for the action indicated.
- d) Distribution. Retain three copies of each submittal, except "Samples" where one copy will be retained.

7.4.7 Actions Possible. Submittals will be returned with one of the following notations:

- a) Not Approved. Submittals marked "not reviewed" shall indicate the submittal has been previously reviewed and approved, is not required as a submittal, does not have evidence of being reviewed and approved by the Contractor, or is not complete. A submittal marked "not reviewed" shall be returned with an explanation of the reason it is not reviewed. Returned submittals deemed to lack review by the Contractor or to be incomplete shall be resubmitted with appropriate action, coordination, or change.
- b) Approved. Submittals marked "approved" or "approved as submitted" authorize the Contractor to proceed with the work covered.
- c) Approval as Noted. Submittals marked "approved as noted" authorize the Contractor to proceed with the work as noted provided the Contractor takes no exception to the notations.
- d) Revise and Resubmit. Submittals marked "revise and resubmit" or "disapproved" indicate the submittal is incomplete or does not comply with the design concept or the requirements of the Contract documents and shall be resubmitted with appropriate changes.

7.5 FORMAT OF SUBMITTALS

7.5.1 Upon contract award and specified in each CTO the contractor shall be required to report all submittals electronically unless otherwise specified. Copies of all deliverables, including but not limited to proposals, invoices, safety plans, work plans, reports, technical transfer data, and other technical data shall be furnished to the government electronically. The contractor shall develop and maintain an ETIC Web Site, all submittals to the government will be reported via regular population of the ETIC Web Site.

7.6 SUBMITTAL LIST INSTRUCTIONS

7.6.1. Submittal List. Use a submittal list to track progress of submittals as they are processed. The submittal list for each CTO shall be submitted to the government electronically by the Project Manager or designated representative. The submittal list for each CTO shall include, but not be limited to, the description of each submittal, the scheduled delivery date of each submittal, the number of copies of each submittal and each person and address the submittals will be delivered to, the frequency of delivery of each submittal, and the start and end date of each submittal, including draft and final versions of each submittal.

PART 8.0 ENVIRONMENTAL DATA MANAGEMENT AND REQUIRED ELECTRONIC DELIVERY STANDARDS

8.1 SPATIAL DATA STANDARDS

The Tri-Services Spatial Data Standards (TSSDS) shall be used on all CADD and GIS graphics deliverables. These standards have been established for all Department of Defense agencies and the standards include symbols for all aspects of Facilities Management and Military Operations and include symbols for Environmental Restoration and Compliance. Spatial data deliverables are required for all site investigation, site assessment, site verification, remedial investigation, and confirmation sampling activities.

8.2 NON-SPATIAL DATA STANDARDS

Utilize Executive Order 12906 “Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure” and OMB Circular No. A-16 (“Coordination of Surveying, Mapping, and related Spatial Data Activities”)

As directed per region the Navy Environmental Data Transfer Standards (NEDTS 2.01) shall be used for all projects involving the collection of environmental measurements and laboratory analyses. The NEDTS consist of an open platform and software-independent definition consisting of 36 fixed-length tables and associated lists of valid values. NEDTS deliverables are required for all site investigation, site assessment, site verification, remedial investigation, and confirmation sampling activities.

8.3 LABORATORY ELECTRONIC DELIVERABLES

Laboratory electronic deliverables are required for data collected during remediation activities including sampling during the start-up and operation of treatment systems (soil vapor extraction, air sparging, ground water extraction and treatment, etc.) and waste characterization (investigation-derived waste (IDW), construction-generated waste, and other materials or wastes) for on-site or off-site treatment/disposal.

8.4 CONTROL INFORMATION

8.4.1 Controls. Horizontal and vertical control information for both graphic and non-graphic information are as follows:

- a) Horizontal Controls: Mercator projection, GRS 80, State Plane Coordinate System, North American Datum 1983, Lambert Zones 1 through 6 (or appropriate zone for region to be mapped), feet.
- b) Vertical Controls: Mean Sea Level, North American Vertical Datum, 1988.

8.5 DELIVERY REQUIREMENTS

8.5.1 Definition. All contractors tasked with environmental management, monitoring, investigation or restoration projects which result in the acquisition of new data or in the confirmation of existing data shall be required to submit the data in accordance with the standards

identified in paragraph 4.1 and shall be required to deliver electronic copies of the information to the Contracting Officer or designated representative.

8.5.2 Media. The delivery media shall be 1.44 megabyte floppy disk or rewriteable CD ROM. The contractor shall populate the ETIC Web Site with the new data. Delivery of hard copy data, a last resort, shall be submitted on 8.5 inch by 11 inch paper. If the data is bound, use plastic comb binding.